



Duolec® Vari-Purpose Gear Lubricant (1605)

Jernberg Industries, Inc. – Chicago, Ill.

Induction Furnace Gearboxes

- Reduced gearbox temperatures
- Reduced amperage by 4-5 amps
- Eliminated cold start problem
- Extended oil drain intervals from 4-5 months to once a year

Customer Profile

Jernberg Industries Inc., based in Chicago, Illinois, has been in business for about 60 years producing and supplying heavy forged materials primarily for the transportation industry. Their customers range from General Motors, Toyota, and Harley-Davidson, to small and medium sized businesses.

Application

Jernberg operates nine induction furnaces that are critical in the manufacturing process of the forged material. It is absolutely crucial that this equipment operates properly in order to keep up with the high customer order demand. While utilizing commercial grade gear oil, they were constantly experiencing high temperatures in the furnaces' gearboxes which led to excessive oil evaporation. To further complicate matters, cold weather would cause starting problems leading to gear wear and electric motor overload. Jernberg conducted oil analysis on a regular basis and utilized the results to establish oil change intervals. The analysis resulted in a consistent oil change interval of 4-5 months.

Challenge

Taking into account the critical nature of these induction furnaces in the manufacturing process, Ken Lopatka, maintenance supervisor, wanted to reduce the high gearbox temperatures, the cold starting problems and increase oil drain intervals.



LE Solution

Jernberg Industries has been an LE customer for more than 10 years. During this time, Jernberg has been very pleased with the performance of LE's engine and transmission oils. When Duolec® Vari-Purpose Gear Lubricant (1605) was recommended for this demanding and critical application they did not hesitate to utilize it.



Results

Since the introduction of Duolec 1605, the gearbox temperatures have significantly been reduced resulting in a 4 to 5 amp drop (reduced electric consumption), the cold starting issues are a thing of the past and based on oil analysis they have increased oil change intervals to once a year.

Ken Lopatka added that prior to using Duolec 1605 they had to, in many cases, use heat lamps to heat the commercial grade oil to avoid starting problems.

Now, they use this product in many other similar applications.

Other Products Used

- Almaplex® Industrial Lubricant (1275)
- Almaplex® Ultra-Syn Lubricant (1299)
- Monolec® R & O Compressor / Turbine Oil (6404)



Thank you to Ken Lopatka, maintenance supervisor (pictured left), and to V.C. Vasisth, LE lubrication consultant (pictured right), for providing the information used in this report.



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